WHAT IS CLAIMED IS:

1. A process for producing inorganic spheres, which comprises injecting an aqueous liquid containing an inorganic compound through an inlet hole into an organic liquid which flows at a flow rate of from 0.001 to 2 m/s in a laminar flow state in a flow path to form a W/O type emulsion, and solidifying the aqueous liquid containing an inorganic compound in the W/O type emulsion.

2. The process for producing inorganic spheres according to Claim 1, wherein the aqueous liquid contains silica, and the inorganic spheres are silica porous spheres.

3. The process for producing inorganic spheres according to Claim 2, wherein the W/O type emulsion is gelated by adding an acid.

4. The process for producing inorganic spheres according to Claim 1, wherein the organic liquid is a C_{9-12} saturated hydrocarbon.

5. The process for producing inorganic spheres according to Claim 1, wherein the Reynolds number of the organic liquid is at most 500.

6. The process for producing inorganic spheres according to Claim 1, wherein the ratio of the linear velocity of the organic liquid in a flow direction to the linear velocity of the aqueous liquid in a flow direction is from 1 to 500.

7. The process for producing inorganic spheres according to Claim 1, wherein the cross section of the inlet hole

has at least one shape selected from the group consisting

of circular, rectangular, triangular and elliptic shapes.

8. The process for producing inorganic spheres according

to Claim 7, wherein the quadruple of the hydraulic radius

5   r of the cross section of the inlet hole is from 0.1 to

500 µm.

9. The process for producing inorganic spheres according

to Claim 1, wherein the flow path is compartmentalized by

a partition wall, and the inlet hole is formed so that it

10   perforates in a thickness direction of one partition wall.

10. The process for producing inorganic spheres according

to Claim 9, wherein a plurality of the inlet holes are

formed on one partition wall with a distance of at least

half the diameter of a circle which is circumscribed

15   around the cross-sectional shape of the inlet holes.

11. The process for producing inorganic spheres according

to Claim 9, wherein at least 100 inlet holes are formed,

and the pressure loss of the organic liquid as between

the inlet hole which is located at the most upstream side

20   of the organic liquid and one at the most downstream side

is from 10 to 1,000 Pa.

12. The process for producing inorganic spheres according

to Claim 11, wherein the flow path of the organic liquid

is installed at an angle of at least 30° to the

25   horizontal plane and the organic liquid flows from bottom

to top.

13. The process for producing inorganic spheres according

to Claim 12, wherein the flow path of the organic liquid is installed vertically to the horizontal plane.

14. The process for producing inorganic spheres according to Claim 11, wherein the distance between the inlet hole which is located at the most upstream side of the organic liquid and one at the most downstream side is from 1 to 300 mm.

15. The process for producing inorganic spheres according to Claim 11, wherein the number average particle size is from 0.1 to 100 µm.

16. The process for producing inorganic spheres according to Claim 9, wherein the quadruple of the hydraulic radius r of the cross section of the inlet hole is from 0.1 to 100 µm, the ratio of the number average particle size of the inorganic spheres to the quadruple of the hydraulic radius r of the cross section is from 0.1 to 5.0, and the ratio of the linear velocity of the organic liquid in a flow direction to the linear velocity of the aqueous liquid in a flow direction is from 10 to 300.

17. The process for producing inorganic spheres according to Claim 16, wherein at least 100 inlet holes are formed on one partition wall.

18. The process for producing inorganic spheres according to Claim 16, wherein the number average particle size is from 10 to 100 µm.

19. The process for producing inorganic spheres according to Claim 16, wherein the value obtained by dividing the

standard deviation of the particle size distribution by the number average particle size is at most 0.2.

20. An apparatus for producing inorganic spheres, which is constituted in such a manner that an aqueous liquid containing an inorganic compound is injected into an organic liquid which flows at a flow rate of from 0.001 to 2 m/s in a laminar flow state in a flow path compartmentalized by a partition wall through at least 100 inlet holes which perforate in a thickness direction of the partition wall to form a W/O type emulsion, and the aqueous liquid containing an inorganic compound in the emulsion is solidified to form inorganic spheres, wherein the pressure loss of the organic liquid as between the inlet hole which is located at the most upstream side of the organic liquid and one at the most downstream side is from 10 to 1,000 Pa.

21. The apparatus for producing inorganic spheres according to Claim 20, wherein the organic liquid flows from bottom to top in the flow path provided at an angle of at least 30° to the horizontal plane.

22. The apparatus for producing inorganic spheres according to Claim 21, wherein the flow path is provided vertically to the horizontal plane.

23. The apparatus for producing inorganic spheres according to Claim 20, wherein the distance between the inlet hole which is located at the most upstream side of the organic liquid and one at the most downstream side is

from 1 to 300 mm.